NEW MEXICO

ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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GROUND WATER QUALITY BUREAU
DISCHARGE PERMIT – MODIFICATION
Issued under 20.6.2 NMAC

Facility Name:	Leprino Foods Company - Roswell
Discharge Permit No:	DP-837
Facility Location:	5600 E. Omaha Rd, Roswell
	Section 26 and 35, Township 11S, Range 24E
County:	Chaves
VP Name:	Lance Fitzsimmons, Sr. Vice President
Mailing Address:	1830 W 38th Avenue, Denver, CO 80211
Facility Operator:	Don Doyle, Plant Manager
Mailing Address:	5600 E. Omaha Rd., Roswell, NM 88203
Permitting Action:	Modification
Source Classification:	Food Processing
Permit Issuance Date:	March 6, 2019
Permit Modification Issuance Date:	Date
Permit Expiration Date:	March 5, 2024
NMED Permit Contact:	Nancy McDuffie
Telephone Number/Email:	505-699-4293/nancy.mcduffie@state.nm.us

MICHELLE HUNTER
Chief, Ground Water Quality Bureau

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PART A GENERAL INFORMATION

A100 Introduction

A. The New Mexico Environment Department (NMED) issues this Discharge Permit Modification (Discharge Permit), DP-837, to Leprino Foods Company (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Ground and Surface Water Protection Regulations, 20.6.2 NMAC. NMED's purpose in issuing this Discharge Permit is to control the discharge of water contaminants from Leprino Foods Company (Facility, "LFC") for the protection of groundwater and those segments of surface water gaining from groundwater inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.

B. The Permittee is discharging up to 1.7 million gallons per day (MGD) of food process wastewater from a whey and cheese processing facility to an onsite wastewater treatment facility (WWTF) for treatment prior to land application via flood, side-roll, and center pivot irrigation on up to 440 acres of cropland under cultivation. Additionally, up to 350,000 gallons per month of untreated brine water is separately discharged from the facility to three double synthetic lined impoundments with leak detection for disposal by evaporation. Additionally, the Permittee is discharging up to 8,000 gallons per day (GPD) of domestic wastewater to a new onsite wastewater treatment facility (WWTF) for treatment and disposal by evaporation.

These discharge(s) or leachate(s) may move directly or indirectly into groundwater of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter (mg/L) or less of total dissolved solids (TDS) within the meaning of Section 20.6.2.3104 and Subsection A of 20.6.2.3101 NMAC. These discharges may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC in compliance with the terms and conditions of this Discharge Permit.

The WWTF consists of four flow-equalization basins, three at 250,000 gallons each and one at 40,000 gallons; one Moving Bed Biofilm Reactor (195,000 gallons); two double synthetic lined extended-aeration activated sludge basins with leak detection (2,000,000 gallons each); two clarifiers; one double synthetic lined treated wastewater storage impoundment with leak detection (42 million gallons). Treated wastewater is stored in the final synthetic lined impoundment until it is discharged to the land application area.

- Approximately up to 20,000 gallons per day (gpd) of effluent or sludge from the clarifiers and, when needed, sludge from the wastewater storage impoundment can be pumped and stored in a 6 million gallon (MG) double synthetic lined impoundment with leak detection for aerobic and anaerobic digestion, or by removing solids as necessary in accordance with accepted process control methods.

- Approximately up to 300,000 gpd of reverse osmosis (RO) retentate from water supply treatment system is discharged directly to the double synthetic lined wastewater storage impoundment prior to land application.

- Approximately up to 40,000 gpd of reverse osmosis (RO) retentate from the condensate of whey (COW) water is discharged directly to the double synthetic lined wastewater storage impoundment prior to land application.

- (Proposed New System) Approximately up to 8,000 gpd of domestic wastewater flows to the domestic wastewater lift station and flows through a 12,000-gallon two-compartment septic tank wastewater lift station prior to being discharged into a two-cell 80 mil HDPE lined evaporative lagoons for disposal by evaporation.

C. In issuing this Discharge Permit, NMED has determined that the Permittee has met the requirements of Subsection C of 20.6.2.3109 NMAC. Pursuant to Section 20.6.2.3104 NMAC, it is the Permittee's responsibility to comply with the terms and conditions of this Discharge Permit; failure to do so may result in enforcement action by NMED (20.6.2.1220 NMAC).

A101 Terms of Permit Issuance

A. **Permit Duration** - Pursuant to WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of a Discharge Permit shall be for the fixed term of **five years** from the effective date of the Discharge Permit. Modification to an existing Discharge Permit does not change these terms.

B. **Permit Modification** – Modification to existing DP-837 represented herein consist of a change in the wastewater quality due to the discharge of up to 8,000 gpd of domestic wastewater to a new treatment and disposal system

C. **Permit Fees** – Payment of permit fees is due at the time of Discharge Permit approval. Permit fees shall be paid in a single payment or shall be paid in equal installments on a yearly basis over the term of the Discharge Permit. Single payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date. Initial installment payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date; subsequent installment payments shall be remitted to NMED no later than the anniversary of the Discharge Permit effective date. Permit fees are associated with issuance of this Discharge Permit. Nothing in this Discharge Permit relieves the Permittee of the obligation to pay all permit fees assessed by NMED. A Permittee that ceases discharging or does not commence discharging from the facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. An approved Discharge Permit shall be suspended or terminated if the facility fails to remit an installment payment by its due date. [Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]

D. **Permit Renewal** - To renew this Discharge Permit, the Permittee shall submit, in accordance with Section G of 20.6.2 NMAC, an application and any associated fees for renewal, renewal and modification, or renewal for closure at least 120 days before the discharge permit expiration date, unless closure of the facility is approved by NMED before that date.

E. **Transfer of Ownership** - This Discharge Permit is being issued to Leprino Foods Company as identified in **Section A100** above. In accordance with Section 20.6.2.3111 NMAC, the Permittee, any listed owner(s) of record, and any [other] holder(s) of an expired discharge

permit are responsible for complying with the conditions listed herein. If during the duration of this Discharge Permit a change in the list of responsible persons is required, transfer of ownership shall be completed in accordance with Section 20.6.2.3111(A).

A102 Applicable Regulations

A. **Scope** - This Discharge Permit applies solely for the regulation of process wastewater, domestic wastewater, or stormwater generated from facility operations.

B. The discharge from the facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

C. Groundwater quality as observed in on-site monitoring wells is subject to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC unless otherwise specified in this Discharge Permit.

D. Complying with the applicable requirements of 20.6.2 NMAC does not relieve a facility's owner, operator or Permittee from complying with the requirements of other applicable local, state and federal regulations or laws.

A103 Facility: Physical Description

A. This facility is located at 5600 E Omaha Road, Roswell in Sections 26 and 35, Township 11S, Range 24E, Chaves County.

B. This facility is comprised of the following wastewater system components as identified in the application dated August 3, 2020 and the administrative record which includes the original Discharge Permit issued on June 14, 1992 and subsequently renewed and/or modified on December 31, 1998; February 15, 1999; November 3, 1999; March 23, 2000; November 7, 2005; March 4, 2013; and March 6, 2019 as of the effective date of this Discharge Permit:

1. Wastewater impoundments:
    a. **Effluent Lagoon** - a 42 million gallon double synthetically lined retention impoundment used to store process wastewater prior to land application. Effluent Lagoon is located approximately 600 feet southwest of the Guard Shack and was constructed in 1994.
    b. **Brine Evaporation Ponds A & B** – two 2.5 million gallon double synthetically lined retention impoundment used to store brine wastewater for disposal by evaporation. Brine Evaporation Ponds A & B are located approximately 1,400 feet southwest of the Guard Shack and was constructed in 1994.
    c. **Brine Evaporation Pond C** – a 120,000 gallon double synthetically lined retention impoundment used to store brine wastewater for disposal by evaporation. Brine Evaporation Pond C are located approximately 1,400 feet southwest of the Guard Shack.

d. **Domestic Evaporation Pond -** a two cell synthetically lined retention impoundment used to store domestic wastewater for disposal by evaporation. Domestic Evaporation Pond is proposed to be located approximately 2,200 feet southwest of the Guard Shack and is to be constructed in the term of this discharge permit.

2. Fields within the land application area:

   a. **LP-1A** – 2.5 acres, located approximately 1,000 feet southeast of the Guard Shack. Wastewater is applied by a flood irrigation.

   b. **LP-1B** – 19.75 acres, located approximately 3,500 feet southwest of the Guard Shack. Wastewater is applied by a flood irrigation.

   c. **LP-1C** – 100 acres, located approximately 2,000 feet southwest of the Guard Shack. Wastewater is applied by a pivot irrigation.

   d. **LP-2A** – 36.95 acres, located approximately 1,400 feet southwest of the intersection of Hobson Rd. and Omaha Rd. on the south side of Hobson Rd. Wastewater is applied by a flood irrigation.

   e. **LP-2B** – 10.8 acres, located southwest of the intersection of Hobson Rd. and Omaha Rd. Wastewater is applied by a flood irrigation.

   f. **LP-2C/D** – 28.9 acres, located approximately 1,300 feet southwest of the intersection of Hobson Rd. and Omaha Rd. Wastewater is applied by a flood irrigation.

   g. **LP-2E** – 53 acres, located northwest of the intersection of Omaha Rd. and US-285. Wastewater is applied by a flood irrigation.

   h. **LP-3A/D** – 40 acres, located southeast of the intersection of Rocking Chair Rd. and US-285. Wastewater is applied by a flood irrigation.

   i. **LP-3B** – 86.1 acres, located southwest of the intersection of Omaha Rd. and US-285. Wastewater is applied by a pivot irrigation.

   j. **LP-3C** – 17 acres, located northeast of the intersection of Rocking Chair Rd. and Cross Rd. Wastewater is applied by a flood irrigation.

These system components identified are potential sources of groundwater contamination. **Section B100** lists all wastewater system components authorized to discharge under this Discharge Permit.

A104 Facility: Documented Hydrogeologic Conditions

A. Groundwater most likely to be affected at this facility is at a depth of approximately 38 feet and had a total dissolved solids concentration of 2,420 milligrams per liter.

B. Data collected from on-site monitoring wells document groundwater contamination potentially attributed to one or more wastewater system components at this facility. Groundwater quality standards for Nitrate, Chloride, and Total Dissolved Solids have been exceeded according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.

C. The Permittee shall continue to employ phytoremediation to the land application area LP-1A to address 20.6.2.3103 NMAC groundwater exceedances. The effectiveness of phytoremediation shall be evaluated through land application data sheets, crop nitrogen removal, and groundwater monitoring as contained within conditions of this Discharge Permit. [20.62.3107 and 20.6.2.3109 NMAC]

PART B FACILITY SPECIFIC REQUIREMENTS

B100 Authorized Discharge

A. NMED authorizes the Permittee to discharge water contaminants as part of facility operations subject to the following requirements:

1. The Permittee is authorized to discharge up 1.7 million gallons per day (MGD) of food process wastewater from a whey and cheese processing facility to an onsite wastewater treatment facility (WWTF) for treatment prior to land application via flood, side-roll, and center pivot irrigation on up to 440 acres of cropland under cultivation. Additionally, up to 350,000 gallons per month of untreated brine water is separately discharged from the facility to three double synthetic lined impoundments with leak detection for disposal by evaporation. Additionally, the Permittee is discharging up to 8,000 gallons per day (GPD) of domestic wastewater to a new onsite wastewater treatment facility (WWTF) for treatment and disposal by evaporation.

   - The WWTF consists of four flow-equalization basins, three at 250,000 gallons each and one at 40,000 gallons; one Moving Bed Biofilm Reactor (195,000 gallons); two double synthetic lined extended-aeration activated sludge basins with leak detection (2,000,000 gallons each); two clarifiers; one double synthetic lined treated wastewater storage impoundment with leak detection (42 million gallons). Treated wastewater is stored in the final synthetic lined impoundment until it is discharged to the land application area.
   - Approximately up to 20,000 gallons per day (gpd) of sludge from the clarifiers and, when needed, sludge from the wastewater storage impoundment can be pumped and stored in a 9 million gallon (MG) double synthetic lined impoundment with leak detection for aerobic and anaerobic digestion, or by removing solids as necessary in accordance with accepted process control methods.
   - Approximately up to 300,000 gpd of reverse osmosis (RO) retentate from water supply treatment system is discharged directly to the double synthetic lined wastewater storage impoundment prior to land application.
   - Approximately up to 40,000 gpd of reverse osmosis (RO) retentate from the condensate of whey (COW) water is discharged directly to the double synthetic lined wastewater storage impoundment prior to land application.
   - (Proposed New System) Approximately up to 8,000 gpd of domestic wastewater flows to the domestic wastewater lift station and flows through a 12,000-gallon two-compartment septic tank wastewater lift station prior to being discharged into a two-

cell 80 mil HDPE lined evaporative lagoons for disposal by evaporation.

2. The Permittee is authorized to use the following impoundments for the following purposes in accordance with Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC:

   a. **Effluent Lagoon** – authorized to receive process wastewater for storage prior to land application. This impoundment *exists* as of the effective date of this Discharge Permit.

   b. **Brine Evaporation Ponds A, B, C** – authorized to receive brine wastewater for storage for disposal by evaporation. These impoundments *exist* as of the effective date of this Discharge Permit.

   c. **Domestic Evaporation Pond** – authorized to receive domestic wastewater for storage for disposal by evaporation. This impoundment is *proposed for construction*.

3. NMED authorizes the Permittee to apply wastewater to fields within the land application area in accordance with Subsection C of 20.6.2.3109 NMAC. The land application area is comprised of 440 acres as described in Paragraph B2 of Section A103.

B. This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges, such as spills or leaks must be reported to NMED in a corrective action conducted pursuant to Section 20.6.2.1203 NMAC.

B101 <u>Existing System Controls</u>

A. The Permit requires the following existing system controls at this dairy facility, as described below:

1. **Impoundments** - The Permittee shall maintain operations of the existing impoundment(s) as listed in **Section A103** above in accordance with conditions listed in **Table B2** to achieve compliance with this Discharge Permit. The wastewater impoundment system shall be designed to achieve compliance with the storage capacity requirements of Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC.

2. **Flow Meters** - The facility measures the volume of (1) wastewater discharged from the production area and (2) wastewater and stormwater discharged to the land application area.

3. **Monitoring Wells** - The facility uses the following monitoring wells to supply data representative of groundwater quality [Subsection A of 20.6.2.3107 NMAC]:

   a. **MW-1**, intended to be located hydrologically upgradient of the sludge impoundment. Located at 33°19’463.89” N, 104°29’13.37” W.

   b. **MW-2**, intended to be located hydrologically downgradient of the brine water evaporative impoundments. Located at 33°19’41.61” N, 104°29’8.60” W.

   c. **MW-3**, intended to be located hydrologically upgradient of the brine water evaporative impoundments. Located at 33°19’44.95” N, 104°29’5.19” W.

   d. **MW-4**, intended to be located hydrologically downgradient of field LP-3C. Located at 33°18’22.68” N, 104°28’59.02” W.

e. **MW-5**, intended to be located hydrologically upgradient of field LP-1A. Located at 33°19'38.71" N, 104°28'44.44" W.

f. **MW-6**, intended to be located hydrologically upgradient of field LP-1A and facility. Located at 33°19'29.43" N, 104°28'44.42" W.

g. **MW-7**, intended to be located hydrologically downgradient of field LP-1C. Located at 33°19'15.97" N, 104°28'45.30" W.

h. **MW-8**, intended to be located hydrologically upgradient of field LP-1C. Located at 33°19'15.45" N, 104°29'16.93" W.

i. **MW-9**, intended to be located hydrologically upgradient of field LP-2A. Located at 33°19'15.32" N, 104°29'16.65" W.

j. **MW-10**, intended to be located hydrologically upgradient of field LP-3A/D. Located at 33°18'58.16" N, 104°29'15.89" W.

k. **MW-11**, intended to be located hydrologically upgradient of field LP-3C. Located at 33°18'34.90" N, 104°29'14.91" W.

l. **MW-12**, intended to be located hydrologically downgradient of field LP-3B. Located at 33°18'22.65" N, 104°28'43.19" W.

m. **MW-13**, intended to be located hydrologically off-gradient of field LP-3B. Located at 33°18'39.46" N, 104°28'43.30" W.

n. **MW-14**, intended to be located hydrologically off-gradient of field LP-2E. Located at 33°18'46.32" N, 104°28'43.63" W.

o. **MW-15**, intended to be located hydrologically off-gradient of field LP-2C/D. Located at 33°18'52.72" N, 104°28'43.92" W.

p. **MW-16**, intended to be located hydrologically upgradient of all contamination sources at the facility. Located at 33°19'57.80" N, 104°28'53.97" W.

q. **MW-17**, intended to be located hydrologically downgradient of the triple synthetic lined treated wastewater storage impoundment. Located at 33°19'39.87" N, 104°28'57.10" W.

r. **MW-18**, intended to be located hydrologically downgradient of field LP-1C and LP-1B. Located at 33°19'15.29" N, 104°29'2.47" W.

s. **MW-19**, intended to be located hydrologically downgradient of field LP-2E. Located at 33°18'52.53" N, 104°29'1.04" W.

B102 <u>Conditions for Operation</u>

A. NMED has reviewed the permit application for the proposed facility and has determined that the provisions of the applicable groundwater quality standards will be met in accordance with this Discharge Permit. General conditions for all Discharge Permits issued by the Ground Water Quality Bureau pursuant to NMAC 20.6.2, as well as specific conditions as applied to the operation and maintenance of this facility are summarized on **Table B1**. Unless otherwise specified in Parts A or B of this Discharge Permit, both the general conditions for a facility

discharge permit (as listed in this part) and facility-specific conditions as listed are mandated to assure continued compliance.

Table B1
General Discharge Permit Conditions:

Engineering and Surveying
a) Prior to discharging to the new domestic wastewater treatment system, the Permittee shall submit an up-to-date diagram of the layout of entire facility to NMED. The diagram shall include the following elements: • north arrow • effective date of the diagram • overall facility layout • wastewater system components: impoundments, sumps, separators, piping • fields within the land application area with identification and acreage labeled • groundwater monitoring wells • irrigation wells • meters measuring wastewater discharges to the onsite WWTP, Brine, and Domestic Impoundments • meters measuring wastewater applied to the land application area • each ditch irrigation system, acequia, irrigation canal and drain • backflow prevention methods or devices • wastewater sampling locations Any element that cannot shown due to its location inside of existing structures, or because it is buried without surface identification, shall be on the diagram in a schematic format and identified as such.
Operations and Maintenance
b) Operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC are not violated.
c) Maintain all fencing around the WWTF to control access by the general public and animals.
d) Maintain all signage indicating that the wastewater at the facility is not potable. All signage shall be printed in English and Spanish and shall remain visible and legible.
e) Repair or replace compromised pipe(s) or fixture(s) within 72 hours of discovery.
Inspection and Monitoring
f) Visually inspect all facility pipes and fixtures on a weekly basis for evidence of leaks or failure.
Recordkeeping and Reporting
g) Maintain written records at the facility of any inspection(s), repairs and maintenance conducted on facility infrastructure as related the wastewater management system.

Table B1
General Discharge Permit Conditions:

h) Conduct the monitoring, reporting, and other requirements in accordance with the monitoring requirements of this Discharge Permit.

i) Unless otherwise specified by this Discharge Permit, or approved in writing by NMED, the Permittee shall use sampling and analytical techniques that conform with the references listed in Subsection B of 20.6.2.3107 NMAC

j) Unless otherwise identified in this Discharge Permit, submit monitoring reports to NMED quarterly according to the following schedule:

- January 1 through March 31 (first quarter) – report due by **May 1**
- April 1 through June 30 (second quarter) – report due by **August 1**
- July 1 through September 30 (third quarter) – report due by **November 1**
- October 1 through December 31 (fourth quarter) – report due by **February 1**

k) Retain required records for a minimum period of five years from the date of any sample collection, measurement, report or application in accordance with 20.6.2.3107 NMAC, 74-6-5 WQA.

B. **Impoundment(s) -** The Permittee shall manage all impoundments at the facility in accordance with 20.6.2.3107 and 20.6.2.3109 NMAC and the conditions summarized in **Table B2** below.

Table B2
Impoundment(s)

Engineering, Surveying and Construction and/or Improvements
a) By **September 6, 2021**, the Permittee shall collect a grab sample of process wastewater from pump to the land application analyze the non-filtered sample for: • 1,4-dioxane (CAS 123-91-1) (using EPA Method 8270D- SIM) Samples shall be properly collected, prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Reporting limits shall be less than the corresponding numerical ground water standards identified in 20.6.2.3103 NMAC. The reporting limit for 1,4-dioxane shall be less than the Tap Water Screening Level for 1,4-dioxane identified in the NMED Risk Assessment Guidance for Site Assessments and Investigations, Table A-1 (available on the NMED Hazardous Waste Bureau's website under Guidance Documents). A summary of detected concentrations compared with the corresponding ground water standards, and a copy of the laboratory report, including the analytical results and Quality Control/Quality Assurance information, shall be submitted to NMED within 30 days of LFC receipt of laboratory results.
Operations and Maintenance of All Impoundments
b) Prior to discharging to the new domestic wastewater treatment system (by **DATE**) complete construction/improvements to the new impoundment(s) with the approved construction plans and specifications and supporting design calculations.

Table B2
Impoundment(s)

c) The Brine and Domestic wastewater impoundments shall be designed to contain the maximum daily discharge volume authorized by the Discharge Permit. The design calculations may consider seasonal discharge patterns.

d) The Effluent Lagoon shall be designed to contain the maximum daily discharge volume authorized by the Discharge Permit for a minimum period of 60 days to accommodate periods when land application is not feasible, while preserving two feet of freeboard. This capacity requirement may be satisfied by a single wastewater impoundment or by the collective capacity of multiple impoundments intended to store wastewater.

e) The Permittee shall maintain impoundments to prevent conditions which could affect the structural integrity of the impoundments and associated liners. Such conditions include or may be characterized by the following:

- Erosion damage
- Animal burrows or other damage
- The presence of large debris or large quantities of debris in the impoundment
- Evidence of seepage
- Evidence of berm subsidence
- The presence of vegetation including: aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself. Vegetation growing around the impoundment shall be routinely controlled in a manner that is protective of the impoundment liner.

f) The Permittee shall preserve a minimum of two feet of freeboard between the liquid level in the impoundment(s) and the elevation of the top of the impoundment liner. In the event that the Permittee determines that two feet of freeboard cannot be preserved in the impoundment, the Permittee shall enact the contingency plan set forth in this Discharge Permit.

g) The Permittee shall maintain a record of lift station inspections, repairs, and/or cleanings. Records will be made available to NMED upon request.

h) The Permittee shall utilize operators, certified by the State of New Mexico at the appropriate level, to operate the wastewater collection, treatment and disposal systems. The operations and maintenance of all or any part of the wastewater system shall be performed by, or under the direct supervision of, a certified operator.

i) Repair or replace faulty pipe(s) or fixture(s) within 72 hours of discovery of an unauthorized discharge.

Inspection and Monitoring All Impoundments

j) Visually inspect impoundments and surrounding berms on a monthly basis to ensure proper condition and control vegetation growing around the impoundments in a manner that is protective of the liners.

k) Visually inspect pipes and fixtures on a weekly basis for evidence of leaks or failure. In areas where pipes and fixtures cannot be visually inspected because they are buried, visually inspect the area

Table B2
Impoundment(s)

directly surrounding the features for evidence of leaks or failure (e.g., saturated surface soil, surfacing wastewater, etc.).

l) Upon initial discovery of leachate in the leak detection systems for the wastewater treatment and disposal system, the Permittee shall collect a sample(s) from the individual system(s) and analyze for NO3-N, TKN, Cl, and TDS. Analytical results for newly discovered leaks shall be submitted to NMED with the next scheduled **Quarterly Monitoring Report**.

m) For existing leaks or should leachate continue to accumulate in the leak detection systems for the wastewater treatment and disposal system such that it is routinely pumped, a sample shall be collected semi-annually and analyzed for NO3-N, TKN, Cl, and TDS. Results shall be submitted to NMED with the monitoring reports due **February 1st and August 1st each year**.

n) The Permittee shall collect a composite wastewater sample on a semi-annual basis (once every six months) separately, from each of the **Brine and Domestic** Wastewater impoundments. The composite sample(s) shall consist of a minimum of six equal sub-samples collected around the entire perimeter of the evaporative impoundment and thoroughly mixed. The composite sample(s) shall be analyzed for TKN, NO3-N, TDS and Cl. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the monitoring reports due by **February 1 and August 1 of each year**.

o) The Permittee shall collect and analyze process wastewater samples on a quarterly basis for NO3-N, TKN, Cl, and TDS. Samples shall be collected from the discharge line to the fields within the land application area. Analytical results shall be submitted to NMED in the **Quarterly Monitoring Report**.

Recordkeeping and Reporting All Impoundments

p) Notify NMED at least five working days before starting construction or improvement of an impoundment to allow for an inspection by NMED personnel.

q) Within 90 days of completed impoundment construction, submit a Construction Certification Report verifying construction. The construction certification report shall include: record drawings, final specifications, final capacity calculations and the CQA/CQC report, and bear the seal and signature of a licensed New Mexico professional engineer.

r) Report any unauthorized discharges to NMED pursuant to 20.6.2.1203 NMAC.

s) Unless otherwise specified in this Discharge Permit, submit all monitoring information quarterly as part of the required **Quarterly Monitoring Report** in accordance with the general reporting schedule listed in Table B1 of this Discharge Permit.

t) Notify NMED within 24 hours of discovery of any observed impoundment condition(s) that may impact the structural integrity of a berm or liner or that may result in an unauthorized discharge. [20.6.2.3107 NMAC]

u) Maintain written records at the facility of all facility inspections including repairs and replacements.

C. **Land Application Area Management** - The Permittee shall manage all land application areas at the facility in accordance with 20.6.2.3107 and 20.6.2.3109 NMAC and the conditions summarized in **Table B3** below.

Table B3
Land Application Area Management

Engineering and Surveying
a) Any irrigation or supply wells located within the land application area shall have a surface pad constructed in accordance with the recommendations of Subsection G of 19.27.4.29 NMAC and a permanent well cap or cover pursuant to Subsection I of 19.27.4.29 NMAC.
Operations and Maintenance All Land Application Areas
b) The Permittee shall apply treated food processing wastewater and/or sludge up to 440 acres of cropland under cultivation (fields designated as LP 1A, 1B, 1C, 2A, 2B, 2C/D, 2E, 3A/D, 3B, and 3C) such that the amount of total nitrogen in the combined application of waste water and fertilizer or sludge does not exceed by more than 25% the amount reasonably expected to be taken up by the crop(s) and removed by harvesting in any 12-month period. Treated wastewater shall be distributed evenly throughout the land application area. Excessive ponding shall be prevented.
Inspection and Monitoring All Land Application Areas
c) The Permittee shall visually inspect the concrete-lined (or equivalent alternative) ditch system and piping distribution system on a monthly basis to ensure proper maintenance. Any damage to a lined ditch or PVC piping shall be repaired within 30 days of discovery. The Permittee shall document all inspection findings and repairs made in a log kept on-site that is available to NMED upon request. d) Submit annual updates to the approved NMP to NMED as part of the **Quarterly Monitoring Report** due **May 1** and in accordance with the following requirements: • How planned total nitrogen application rates shall be determined each year based upon realistic yield goals for the planned crops. • How planned sludge application rates shall be determined each year. • The information used to set the crop yield goals shall be identified in the NMP. • How nitrogen application rates will be adjusted based upon the results of soil tests required by Subsections A and C of 20.6.2.3109 NMAC, consistent with applicable Natural Resource Conservation Service guidance for normal, high and excessive soil nitrogen levels. • Specify the maximum application rates for wastewater applied through irrigation so as not to exceed the soil intake/infiltration rate. • Identify the method(s) of crop removal to be employed. The NMP shall be developed for the term of the discharge permit and updated annually. The NMP shall be developed, signed and dated annually by an individual certified by the American society of agronomy as a certified crop advisor (CCA) or certified professional agronomist (CPAg) or by an individual certified by the New Mexico office of the U.S. department of agriculture natural resources conservation service as a nutrient management planner. e) Perform annual soil sampling in each field within the land application area and report analytical results and provide a map depicting the soil sampling locations within each field annually to NMED as part of the **Quarterly Monitoring Report** due **May 1**. Composite soil samples shall be collected in the five-month period between September 1 and January 31 for all fields regardless of whether the field is cropped, remains fallow, or has received wastewater. One surface composite soil sample (first-foot) and two sub-surface composite soil samples (second-foot and third-foot) shall be

Table B3
Land Application Area Management

collected from each field. Composite soil samples shall be collected and analyzed according to the following procedure:

- Each surface and sub-surface soil sample shall consist of a single composite of 15 soil cores collected randomly throughout each field. Should a field consist of different soil textures (i.e., sandy and silty clay), a composite soil sample shall be collected from each soil texture within each field.
- Surface soil samples (first-foot) shall be collected from a depth of 0 to 12 inches.
- Each second-foot sub-surface soil sample shall be collected from a depth of 12 to 24 inches.
- Each third-foot sub-surface soil sample shall be collected from a depth of 24 to 36 inches.
- Each surface and sub-surface composite sample shall be analyzed for pH, electrical conductivity (EC), TKN, NO_3-N, Cl, organic matter (OM), potassium (K), phosphorus (P), sodium (Na), calcium (Ca), magnesium (Mg), sulfate (SO_4), soil texture and determination of the sodium adsorption ratio (SAR).
- Soil samples shall be analyzed in accordance with the analytical methodology required by this Discharge Permit. Soil pH, EC, Na, Ca, Mg and SO4 shall be analyzed using a saturated paste extract. Soil P shall be analyzed using the Olsen sodium bicarbonate method. Soil NO3-N shall be analyzed by a 2 molar KCl extract.
- Each surface and sub-surface composite sample for any field receiving sludge application shall be analyzed for metals (As, B, Ba, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Se, Na, and Zn) using EPA method 6010B. If the results are consistent for the first five years, the Permittee may request to cease metals analysis with the next permit cycle.

f) In the event that a cross-connection with fresh water exists, the Permittee shall institute a backflow prevention method to protect wells and public water supply systems from contamination by wastewater prior to discharging to the land application area. Backflow prevention shall be achieved by a total disconnect (physical air gap separation between the discharge pipe and the liquid surface at least twice the diameter of the discharge pipe), or by a reduced pressure principal backflow prevention assembly (RP) installed on the line between the fresh water supply wells or public water supply and the wastewater delivery system. Backflow prevention shall be maintained at all times.

g) RP devices shall be inspected and tested by a certified backflow prevention assembly tester at the time of installation, repair or relocation and at least on an annual basis thereafter. The backflow prevention assembly tester shall have successfully completed a 40-hour backflow prevention course based on the University of Southern California's Backflow Prevention Standards and Test Procedures, and obtained certification demonstrating completion. A malfunctioning RP device shall be repaired or replaced within 30 days of discovery, and use of all supply lines associated with the RP device shall cease until repair or replacement has been completed. Copies of the inspection and maintenance records and test results for each RP device associated with the backflow prevention program shall be maintained at a location available for inspection by NMED.

Recordkeeping and Reporting All Land Application Areas

h) The Permittee shall collect fresh irrigation water samples from irrigation wells used to supply fresh water to fields within the land application area to account for potential nitrogen supplied to the land

Table B3
Land Application Area Management

application area from fresh irrigation water sources. Each irrigation well shall be identified in association with the field(s) to which it supplies fresh water. A sample shall be collected from each irrigation well annually and analyzed for **NO_3-N** and **TKN**. Analytical results shall be submitted to NMED in the **Quarterly Monitoring Report** due by **May 1st of each year**.
i) The Permittee shall determine the total nitrogen concentrations of the harvested and removed plant material to verify plant nitrogen removal levels of each crop grown. A composite sample of 15 sub-samples of plant material shall be taken from each LFC field during the final harvest of each crop grown per year. Samples shall be analyzed for percent total nitrogen, percent dry matter, and NO3-N. Reports of the analyses shall be submitted to NMED by **Quarterly Monitoring Report** due by **February 1st of each year.**
j) Yield documentation and plant and harvest dates of each crop grown shall be submitted to NMED in the **Quarterly Monitoring Report** due by **February 1st and August 1st each year**. Yield documentation shall consist of scale-weight tickets or harvest summaries based on scale-weights.
k) The Permittee shall keep a log of all natural (i.e. manure, compost, sludge etc.) and chemical fertilizers applied to each field in the land application area. The log shall contain the date of application, the type and nutrient concentration of the fertilizer, and the amount of fertilizer applied to each field. A copy of the log entries for the previous 6-month period shall be submitted to NMED in the **Quarterly Monitoring Report** due by **February 1st and August 1st each year.**
l) The Permittee shall complete LADS (copy enclosed) on a monthly basis that document the amount of nitrogen applied to each field within the land application area during the most recent 12 months. The LADS shall reflect the total nitrogen concentration from the most recent wastewater analysis and the measured discharge volumes to each field within the land application area for each month. The Permittee shall also report on the LADS the amount of nitrogen (fertilizer, wastewater, etc.) applied, crops grown along with planting and harvest dates, crop yield (tons per acre) and nitrogen concentration of the harvested crop specific to the crops grown. The LADS shall be completed with information above or shall include a statement that application of wastewater did not occur. The LADS shall be submitted to NMED in the **Quarterly Monitoring Report.**

D. **Solids Management -** The Permittee shall mange all solids at the facility in accordance with 20.6.2.3107 and 20.6.2.3109 NMAC and the conditions summarized in **Table B4** below.

Table B4
Solids Management

Engineering and Surveying
a) None required.
Operations and Maintenance
b) The Permittee shall properly manage all solids generated by the wastewater treatment system to maintain effective operation by removing solids as necessary in accordance with accepted process control methods. Solids removed from the treatment process shall either be land applied to the LFC

Table B4
Solids Management

land application area or contained, transported, and disposed of in accordance with all local, state, and federal regulations.
Inspection and Monitoring
c) The Permittee shall inspect the wastewater treatment system on a quarterly basis and clean as needed to prevent system failure(s).
Recordkeeping and Reporting
d) The Permittee shall maintain manifests for all solids transported from LFC for offsite disposal. The manifests shall identify the date, volume of solids removed, and method of disposal. The manifests shall be made available to NMED upon request
e) The Permittee shall, at all times, have the log of sump inspections, repairs, and cleanings available for NMED review.

E. **Flow Meters** – Pursuant to 20.6.2.3107 (A) and 20.6.2.3109 (C), the Permittee shall employ a flow metering system that uses flow measurement devices (flow meters) to measure the volume(s) of 1) wastewater discharged from the production area 2) wastewater transferred and land applied at the facility and 3) wastewater discharged to the domestic wastewater system. All flow meters employed at the facility shall be managed in accordance with the conditions listed in **Table B5** below.

Table B5
Flow Meters

Engineering and Surveying
a) None required.
Operations and Maintenance
b) Prior to discharging to the New Domestic Wastewater System, install the following flow meter in accordance with the approved **Flow Metering Plan**: • **Domestic Meter** – to be located on the discharge line to the domestic wastewater evaporative impoundment system to measure the volume of domestic wastewater discharged from LFC
c) All flow meters shall be calibrated in accordance with the manufacturer's requirements prior to installation or reinstallation following repair.
Inspection and Monitoring
d) The Permittee shall measure the monthly volume of all Process wastewater sources discharged to onsite WWTP on a monthly basis and calculate the monthly and average daily volume discharged to the WWTP impoundment system. The Permittee shall maintain a log of monthly meter readings that shall be made available to NMED upon request. The Permittee shall submit the total combined monthly discharge volume for all sources to NMED in the **Quarterly Monitoring Report**.
e) The Permittee shall measure the monthly volume of Brine wastewater discharged to the brine evaporative impoundment system. The Permittee shall obtain readings on a monthly basis and calculate the monthly volume discharged to the impoundment system. The monthly meter

Table B5
Flow Meters

readings, and calculated monthly discharge volumes shall be submitted to NMED in the **Quarterly Monitoring Report**.

f) Upon construction completion of the Domestic Wastewater System, the Permittee shall measure the monthly volume of Domestic wastewater discharged to the domestic evaporative impoundment system. The Permittee shall obtain readings on a monthly basis and calculate the monthly volume discharged to the impoundment system. The monthly meter readings, and calculated monthly discharge volumes shall be submitted to NMED in the **Quarterly Monitoring Report**.

g) The Permittee shall determine the monthly volume of leachate pumped from each of the leak detection systems back into the respective impoundments. Monthly meter readings including units of measurement and monthly volumes for the previous 3-month period shall be submitted to NMED in the **Quarterly Monitoring Report** due by **February 1st and August 1st of each year**. The flow meters shall be kept operational at all times.

h) The Permittee shall measure the monthly volume of food processing wastewater discharged to each field within the land application area using a totalizing flow meter located on the transfer line from the irrigation impoundment to the LAA. The Permittee shall maintain a log that records the date that discharges occur to each field, monthly totalizing meter readings and units of measurement. The log shall be used to calculate the total monthly volume of food processing wastewater discharged to each field. The monthly volume discharged to each location shall be used on the LADS to calculate nitrogen loading. A copy of the log shall be submitted to NMED in the **Quarterly Monitoring Report.**

f) Visually inspect flow meters on a weekly basis for evidence of malfunction. If a visual inspection indicates a flow meter is not functioning to measure flow, the Permittee shall initiate repair or replacement of the meter within 30 days of discovery.

Recordkeeping and Reporting

g) Within 30 days of meter installation, submit a **Confirmation of Installation** report to NMED that includes: a description of the device type, manufacturer, meter identification, location, record drawings, and a copy of the manufacturer's certificate of calibration and a copy of the manufacturer's recommended maintenance schedule.

h) Maintain copies of the manufacturer's certificate of calibration and the manufacturer's recommended maintenance schedule at the facility.

i) Record of meter readings at intervals not to exceed monthly. The average daily discharge volume for each recording interval shall be calculated by dividing the difference between the meter readings by the number of days between meter readings.

j) Record meter readings (without adjustments or deductions) and submit in the **Quarterly Monitoring Report**. Include the date, time and units of each measurement, and calculations for the average daily volumes of wastewater discharged from the processing area, reported in gallons per day.

k) For meters requiring repair, submit a report to NMED on the quarter following the repair that includes a description of the malfunction, a statement verifying the repair, and a copy of the manufacturer's or repairer's certificate of calibration.

Table B5
Flow Meters

l) For meters requiring replacement, submit a report to NMED on the quarter following the replacement that includes plans for the device, a copy of the manufacturer's certificate of calibration, and a copy of the manufacturer's recommended maintenance schedule.
m) The Permittee shall maintain a log of repairs. The log shall be available, at all times, for NMED inspection.

F. **Monitoring Well(s)** - Pursuant to 20.6.2.3107 (A) and 20.6.2.3109 (C), the Permittee is required to install monitoring wells at appropriate depths and locations to monitor groundwater quality. The approved groundwater monitoring well system at the facility is detailed in **Table B6** below.

Table B6
Groundwater Monitoring Wells

Engineering and Surveying
a) None required.
Operations and Maintenance
b) None required.
Inspection and Monitoring
c) Perform quarterly groundwater sampling for all facility monitoring wells as identified in Section B101 A.3 of this Discharge Permit and analyze the samples for dissolved TKN, NO3-N, TDS and Cl. Groundwater sample collection, preservation, transport and analysis shall be performed according to the following procedure: • Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest hundredth of a foot. • Purge three well volumes of water from the well prior to sample collection. • Obtain samples from the well for analysis. • Properly prepare, preserve and transport samples. • Analyze samples in accordance with the methods authorized in this Discharge Permit. Depth-to-most-shallow groundwater measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the **Quarterly Monitoring Report**
d) The Permittee shall develop a groundwater elevation contour map on a quarterly basis using the top of casing elevation data from the monitoring well survey and quarterly depth-to-most-shallow groundwater measurements obtained from the groundwater monitoring wells required by this Discharge Permit. The groundwater elevation contour map shall depict the groundwater flow direction based on the groundwater elevation contours. Groundwater elevations between monitoring well locations shall be estimated using common interpolation methods. A contour interval appropriate to the data shall be used, but in no case shall the interval be greater than two feet. Groundwater elevation contour

Table B6
Groundwater Monitoring Wells

maps shall depict the groundwater flow direction, using arrows, based on the orientation of the groundwater elevation contours, and the location and identification of each monitoring well and contaminant source. The groundwater elevation contour map shall be overlaid on current satellite imagery of the facility submitted to NMED in the **Quarterly Monitoring Report**

e) The Permittee shall develop an isoconcentration maps on a semi-annual basis for Nitrate, Chloride, and TDS using groundwater quality data collected during the second and fourth quarter sampling event(s). The isoconcentration maps shall depict the groundwater quality concentrations beneath the site and shall be used to delineate the groundwater plumes for nitrate, chloride, and total dissolved solids. Concentrations for Nitrate, Chloride, and TDS between monitoring well locations shall be estimated using common interpolation methods. A contour interval appropriate to the data shall be used, but in no case shall the interval be greater than two feet. The isoconcentration maps shall be overlaid on current satellite imagery of the facility and submitted to NMED in the **Quarterly Monitoring Report** due by **February 1st and August 1st**.

f) Prior to the expiration date of this Discharge Permit, NMED shall have the option to perform one downhole inspection of each monitoring well identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days' notice to the Permittee by certified mail. The Permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of any sediment agitated as a result of pump removal.

Recordkeeping and Reporting

g) A annual phytoremediation progress report shall be submitted to NMED in the **Quarterly Monitoring Report** due by **May 1st of each year**. The report at a minimum will discuss data trends and observations of nitrogen removal efficacy and groundwater quality conditions and trends as observed from the facility monitoring well network.

h) A **Quarterly Monitoring Report** shall be filed with NMED in accordance with the general reporting schedule listed in **Table B1**. Each **Quarterly Monitoring Report** shall contain, at a minimum, the following information:

- Facility map with location and number of each well in relation to the contamination source it is intended to monitor
- Depth-to-shallowest groundwater measurements
- Field parameter measurements and parameter stabilization log
- Analytical results (including the laboratory quality assurance and quality control summary report)
- Groundwater elevation contour maps utilizing elevation contours of 2 ft or less

B103 Facility: Conditions for Closure

A. Upon closure of the facility, the Permittee shall perform the following closure measures:

B. For permanent closure, the following closure actions shall be completed upon permanent cessation of wastewater discharge:

1. Within 60 days of ceasing discharging to the impoundment(s), the line leading to the impoundment(s) shall be plugged so that a discharge can no longer occur.
2. Within 60 days of ceasing discharging to the impoundment(s), wastewater shall be evaporated or drained from the impoundment and any other wastewater system components and disposed of in accordance with all local, state, and federal regulations. OR discharged from the impoundment and any other wastewater system components to the land application area, as authorized by this Discharge Permit. The discharge of accumulated solids (sludge) from the impoundment to the land application area shall conform to the requirements of Table B3 of this Discharge Permit.
3. Within 90 days of ceasing discharging to the impoundment(s), the Permittee shall submit a sludge removal and disposal plan to NMED for approval. The Permittee shall initiate implementation of the plan within 30 days following approval by NMED. The sludge removal and disposal plan shall include the following information.
    a) The estimated volume and dry weight of sludge to be removed and disposed, including measurements and calculations.
    b) Analytical results for samples of the sludge taken from the impoundment for TKN, NO3-N, percent total solids, and any other parameters tested (reported in mg/kg, dry weight basis).
    c) The method(s) of sludge removal from the impoundment(s).
    d) The method(s) of disposal for all of the sludge (and its contents) removed from the impoundment(s). The method(s) shall comply with all local, state and federal regulations, including 40 CFR Part 503. *Note: A proposal that includes the surface disposal of sludge may be subject to Ground Water Discharge Permitting requirements pursuant to 20.6.2.3104 NMAC that are separate from the requirements of this Discharge Permit.*
    e) A schedule for completion of sludge removal and disposal not to exceed two years from the date discharge to the impoundment(s) ceased.
4. Within one year following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures.
    a) Remove all lines leading to and from the impoundment(s), or permanently plug and abandon them in place.
    b) Remove or demolish any other wastewater system components and re-grade area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding.
    c) Perforate or remove the impoundment liner(s).
    d) Fill the impoundment(s) with suitable fill.
    e) Re-grade the impoundment site to blend with surface topography, promote positive drainage and prevent ponding.
5. The Permittee shall continue groundwater monitoring until the requirements of this condition have been met and groundwater monitoring confirms for a minimum of eight

(8) consecutive quarterly groundwater sampling events that the standards of Section 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in groundwater.

If monitoring results show that a groundwater quality standard in Section 20.6.2.3103 NMAC is exceeded, the total nitrogen concentration in groundwater exceeds 10 mg/L, or a toxic pollutant as defined in Section of 20.6.2.7 NMAC is present in groundwater, the Permittee shall implement the contingency plan required by this Discharge Permit.

6. Following notification from NMED that post-closure monitoring may cease, the Permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011.
7. When all closure and post-closure requirements have been met, the Permittee may request to terminate the Discharge Permit [20.6.2.3109 NMAC, 20.6.2.3107. NMAC].

B104 Facility: Contingency Plan

A. In the event NMED or the Permittee identifies any failures of the Discharge Permit or system not specifically noted herein, NMED may require the Permittee to develop for NMED approval a contingency or corrective action plan and schedule to cope with the failure(s) [20.6.2.3107.A(10) NMAC].

B. Facility conditions that will invariably require Permittee action under one or more contingency plans include:

1. **Exceedance of groundwater quality standards** – In the event that groundwater monitoring indicates that a groundwater quality standard identified in Section 20.6.2.3103 NMAC is exceeded; the total nitrogen concentration in groundwater is greater than 10 mg/L; or a toxic pollutant (defined in Subsection WW of 20.6.2.7 NMAC) is present in a groundwater sample and in any subsequent groundwater sample collected from a monitoring well required by this Discharge Permit, the Permittee shall enact the following contingency plan:

   Within 60 days of the subsequent sample analysis date, the Permittee shall propose measures to ensure that the exceedance of the standard or the presence of a toxic pollutant will be mitigated by submitting a corrective action plan to NMED for approval. The corrective action plan shall include a description of the proposed actions to control the source and an associated completion schedule. The plan shall be enacted as approved by NMED.

   Once invoked (whether during the term of this Discharge Permit; or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements), this condition shall apply until the Permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of two years of consecutive groundwater sampling events that the standards of Section 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in groundwater.

2. **Ineffective groundwater monitoring well(s)** – In the event that information available to NMED indicates that a well(s) is not constructed in a manner consistent with the

attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011*; contains insufficient water to effectively monitor groundwater quality; or is improperly located the Permittee shall install a replacement well(s) and shall survey the replacement monitoring well(s) within 120 days following notification from NMED.

Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map to NMED within 60 days following well completion.

Upon completion of the replacement monitoring well(s), the monitoring well(s) requiring replacement shall be properly plugged and abandoned. Well plugging, abandonment and documentation of the abandonment procedures shall be completed in accordance with the attachment titled Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011, and all applicable local, state, and federal regulations. The well abandonment documentation shall be submitted to NMED within 60 days of completion of well plugging activities.

3. **Exceedance(s) of permitted maximum daily discharge volume** - The maximum daily discharge volume authorized by this Discharge Permit is exceeded by more than ten percent for any four average daily discharge volumes within any 12-week period the Permittee shall submit a corrective action plan to reduce the discharge volume for NMED approval.

4. **Phytoremediation Failure** - In the event that information available to NMED indicates that phytoremediation is no longer effective in remediating groundwater contamination, the Permittee shall propose alternative remediation method(s) by submitting a corrective action plan to NMED for approval. The plan shall include an implementation schedule and shall be submitted within 90 days of notification by NMED. The Permittee shall enact the plan according to NMED instruction.

5. **Exceedance(s) of Nitrogen Loading Limits** - In the event that the LADS show that the amount of nitrogen in wastewater and additional fertilizer applied to [any field within] land application area in any 12-month period exceeds by more than 25% the amount reasonably expected to be taken up by the crop(s) and removed by harvesting, the Permittee shall propose the reduction of nitrogen loading to the land application area by submitting a corrective action plan to NMED for approval. The plan shall include a schedule for completion of corrective actions and shall be submitted within 90 days following the end of the monitoring period in which the exceedance occurred. The Permittee shall initiate implementation of the plan following approval by NMED.

6. **Soil Loading -** In the event NMED determines, upon review of analytical results from surface and sub-surface soil sampling that N-NO3, Cl, and/or Metals (As, B, Ba, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Se, Na, and Zn) may be migrating vertically in excess of the 2017 NMED Risk Assessment Guidance for Site Investigations and Remediation: Volume 1, Soil Screening Guidance for Human Health Risk Assessment (copy available at env.nm.gov/hazardous-waste/guidance-documents/), the Permittee shall submit a corrective action plan for NMED approval to reduce N-NO3, Cl, and/or Metals

concentrations in the soil within 60 days of NMED notification. The plan shall include source control measures (i.e. reduction of discharge to land application area, expansion of land application area, or alternative wastewater disposal methods)

Additionally, If the analytical results from surface and sub-surface soil sampling indicate that Metals (as listed above) may be migrating vertically to groundwater, the Permittee shall initiate groundwater sampling in the monitoring well downgradient of the field in which metals may be migrating. The Permittee shall sample the well for the metal(s) of concern as identified by NMED and submit the results with the corrective action plan. If metal(s) in groundwater are found to exceed 20.6.2.3103 NMAC the Permittee shall initiate groundwater sampling on quarterly basis and submit results with the **Quarterly Monitoring Report**.

7. **Insufficient impoundment capacity** – If a survey, capacity calculations, or settled solids thickness measurements indicate an existing impoundment is not capable of meeting the capacity the Permittee shall submit a corrective action plan for NMED approval.

   The plan may include, but is not limited to, proposals for constructing an additional impoundment, reducing the discharge volume, removing accumulated solids, changing wastewater management practices, or installing an advanced treatment system. The corrective action plan shall include a schedule for implementation through completion of corrective actions. The corrective action plan schedule shall propose completion not to exceed one year from the submittal date of the initial corrective action plan. The Permittee shall initiate implementation of the plan following approval by NMED. Should the corrective action plan include removal of accumulated solids, solids shall be removed from the impoundment in a manner that is protective of the impoundment liner. The plan shall include the method of removal, and locations and methods for storage and disposal (or land application, if authorized) of the solids.

8. **Inability to maintain required freeboard** - A minimum of two feet of freeboard cannot be preserved in one or more wastewater impoundment(s).

   In the event that two feet of freeboard cannot be restored within a period of 72 hours following discovery, the Permittee shall propose actions to be immediately implemented to restore two feet of freeboard by submitting a short-term corrective action plan to NMED for approval. Examples of short-term corrective actions include: removing excess wastewater from the impoundment through pumping and hauling; or reducing the volume of wastewater discharged to the impoundment. The plan shall include a schedule for completion of corrective actions and shall be submitted within 15 days following the date when the two feet of freeboard limit was initially discovered. The Permittee shall initiate implementation of the plan following approval by NMED.

9. **Impoundment(s) structural integrity compromised** - Any damage to the berms or the liner of an impoundment or any condition that exists that may compromise the structural integrity of the impoundment.

   The Permittee shall propose the repair or replacement of the impoundment liner(s) by submitting a corrective action plan to NMED for approval. The plan shall be submitted to NMED within 30 days after discovery by the Permittee or following notification from NMED that significant liner damage is evident. The corrective action plan shall include a

schedule for completion of corrective actions and the Permittee shall initiate implementation of the plan following approval by NMED.

In the event that analytical results of the liquid present in the leak detection sump(s) indicate that the liquid is consistent with the contents of impoundment(s), the Permittee shall submit a corrective action plan to NMED which evaluates the primary liner leakage rate and the proposed options for stopping or reducing the leakage. The plan shall be submitted for NMED approval within 60 days of the receipt of the analytical results.

10. **Spills, leaks, unauthorized discharge** – Any spill or release that is not authorized under this Discharge Permit. the Permittee shall comply with the requirements of Sections 20.6.2.1203 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.2.1203 NMAC.

C. The Permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, should the corrective action plan not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within 180 days of confirmation of groundwater contamination.

PART C GENERAL TERMS AND CONDITIONS

C100 Legal

A. Nothing in this Discharge Permit in any way, relieves the Permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders [20.6.2 NMAC].

B. Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of groundwater quality, and NMED may require more stringent actions to protect groundwater quality. NMED may require the Permittee to implement abatement of water pollution and remediate groundwater quality.

C. Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the Permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the 20.6.2 NMAC, or this Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6-10 WQA, 74-6-10.1 WQA]

D. Pursuant to WQA 74-6-10.2(A-F), NMED may assess criminal penalties for any person who knowingly violates or knowingly causes or allows another person to:

1. Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA;
2. Falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or
3. Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation, is subject to felony charges and shall be sentenced in accordance with the provisions of Section 31-18-15 NMSA 1978.

E. The Permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice in accordance with 20.6.2.3111 NMAC, prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof. The transferee(s) shall notify NMED, in writing, of the date of transfer of ownership and provide contact information for the new owner(s)

pursuant to Subsection B of 20.6.2.3111 NMAC. Submit to NMED notification of the transfer within 30 days of the ownership transfer date. [20.6.2.3111 NMAC]

F. Pursuant to WQA 74-6-5(o), the Permittee has a right to appeal the conditions and requirements as outlined in this Discharge Permit through filing a petition for review before the WQCC. Such petition shall be in writing to the WQCC within thirty (30) days of the receipt of this Discharge Permit. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review.

C101 General Inspection and Entry Requirements

A. Nothing in this Discharge Permit limits in any way, the inspection and entry authority of NMED under the WQA, 20.6.2 NMAC, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]

B. The Permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]:

1. Enter at regular business hours or at other reasonable times upon the Permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, 20.6.2 NMAC, or any other applicable law or regulation.
2. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, 20.6.2 NMAC, or any other applicable law or regulation.
3. Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, 20.6.2 NMAC, or any other applicable law or regulation.
4. Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.

C102 General Record Keeping and Reporting Requirements

A. The Permittee shall maintain a written record of the following:

1. Amount of wastewater, effluent, leachate or other wastes discharged pursuant to this Discharge Permit. [20.6.2.3107.A NMAC]
2. Operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Discharge Permit. Per Section A of 20.6.2.3107 NMAC, this record shall include:
    a. Repair, replacement or calibration of any monitoring equipment
    b. Repair or replacement of any equipment used in the Permittee's waste or wastewater treatment and disposal system.

3. Any spills, seeps, and/or leaks of effluent, and of leachate and/or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]

B. The Permittee shall maintain at its facility a written record of all data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request:

1. The dates, exact place and times of sampling or field measurements;
2. The name and job title of the individuals who performed each sample collection or field measurement;
3. The date of the analysis of each sample;
4. The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample;
5. The analytical technique or method used to analyze each sample or take each field measurement;
6. The results of each analysis or field measurement, including raw data;
7. The results of any split sampling, spikes or repeat sampling; and
8. A description of the quality assurance (QA) and quality control (QC) procedures used.

C. The Permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The Permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]

C103 Modifications and/or Amendments

A. The Permittee shall notify NMED of any changes to the Permittee's wastewater treatment and disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to operations or processes that would result in any significant change in the discharge of water contaminants. The Permittee shall obtain NMED's approval, as a modification to this Discharge Permit pursuant to Subsections E, F, or G of 20.6.2.3109 NMAC, prior to any increase in the quantity discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit [20.6.2.3107.C NMAC].

B. The Permittee shall file plans and specifications with NMED for the construction of a wastewater system and for proposed changes that will change substantially the quantity or quality of the discharge from the system. The Permittee shall file plans and specifications prior to the commencement of construction. Changes to the wastewater system having a minor effect on the character of the discharge shall be reported as of January 1 and June 30 of each year to NMED. [20.6.2.1202 NMAC]

Part D MISCELLANEOUS

D100 Acronyms

CL.....chloride
CQA .....construction quality assurance
CQC.....construction quality control
DP.....discharge permit
FEMA .....Federal Emergency Management Administration
FIRM .....flood insurance rate map
gpd .....gallon per day
LADS .....land application data sheet(s)
mg/L .....milligram per liter
mL.....milliliters
NMAC .....New Mexico Administrative Code
NMED.....New Mexico Environment Department
NMP .....Nutrient Management Plan
NMSA.....New Mexico Statutes Annotated
NO_3-N .....nitrate as nitrogen
SDDS .....surface disposal data sheet(s)
TDS .....total dissolved solids
TKN.....total Kjeldahl nitrogen
WQA .....New Mexico Water Quality Act
WQCC .....Water Quality Control Commission